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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/767,794

01/29/2004

Thomas Jay Billhartz

GCSD-1494 (51360)

5708

7590

02/24/2006

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EXAMINER

AFSHAR, KAMRAN

ART UNIT

PAPER NUMBER

2681

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/767,794	Applicant(s) BILLHARTZ ET AL	
	Examiner <i>/s/</i> Kamran Afshar, 571-272-7796	Art Unit 2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 9-14, 20-21, 25-31, 35-37 is/are rejected.
- 7) ☒ Claim(s) 3-8 15-19, 22-24, 32-34 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01/29/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 9-14, 20-21, 25-31, 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande (U.S. Pub. No.: 2004/0266348 A1) in view of Kuwahara (U.S. Pub. No.: 2003/0191604 A1).

With respect to claim 1, 14, 20, 30, Deshpande discloses a wireless communications system, device, and / or method (i.e. cellular system, digital wireless system, Wireless LAN system and or short-range and /or Wi-Fi system), a plurality of wireless communications devices each inherently having a device type associated therewith from among a plurality of different device types (See e.g. Page 2, ¶ [0016]) and each device type inherently having a known device latency associated therewith (See e.g. Page, Cellular phone, PDA, Palmtop, mobile phone, wireless terminal, smart telephone, etc. ¶ [0029] - ¶ [0032]). Further, Deshpande discloses a wireless device locator inherently (i.e. adapted include hybrid system: WLAN, ad-hoc network, cellular network, LAN, WAN, etc. Page 1, ¶ [00012]) comprising at least one antenna and a transceiver connected thereto, and a controller inherently for cooperating with the transceiver for transmitting a plurality of location finding signals (See e.g. 310, 320, 340, 36 of Fig.3, Page, 3, ¶ [0034]) to a target wireless communications device from among the plurality of wireless communications devices (See e.g. 1000 of Fig. 1); the target wireless communications device inherently transmitting a respective reply signal for each (See e.g. 110-120 to and from 130 and / or 120 to and from 185 of Fig. 1) of location finding signals (See e.g. 360 of Fig 3, Lines 5-8 of ¶ [0036]); controller of wireless device locator also inherently for cooperating with the transceiver for receiving the reply signals (See e.g. 330 of Fig. 3). In the same field of endeavor, Kuwahara discloses determining a propagation

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delay associated with the transmission of each location finding signal and the respective reply signal and estimating a range to the target wireless communications device (or WLAN device) based upon a plurality of determined propagation delays (See e.g. Title, Abstract, Page 1, ¶ [0015]), and Figs. 1-7). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to provide above teaching of Kuwahara to Deshpande to facilitate measuring range and calculating the position of the wireless communication terminal using a delay time from a wireless base station to a wireless communication terminal and / or from a terminal to a wireless base station (or WLAN device) as suggested by Kuwahara (See e.g. Page 1, ¶ [0001]).

Regarding claims 2, 21, 31, it is obvious that the controller estimates the range based upon an average of the propagation delays (See Kuwahara, e.g. Page 1, Lines 6-11 of ¶ [0003]).

Regarding claims 9, 25, Deshpande discloses at least one antenna comprises at least one directional antenna (See e.g. Page 3, ¶ [0034]).

Regarding claims 10, 26, Deshpande discloses the wireless device locator further inherently comprises a portable housing carrying the at least one antenna, the transceiver, and the controller (See (See e.g. Page 3, ¶ [0034]).

Regarding claims 11, 27, 35, Deshpande discloses the wireless communications devices comprise wireless local area network (WLAN) devices (See e.g. Page 1, ¶ [0012]).

Regarding claims 12, 28, 36, Deshpande discloses the wireless communications devices comprise mobile ad-hoc network (MANET) devices (See e.g. Page 1, ¶ [0012]).

Regarding claims 13, 29, 37, Deshpande discloses the wireless communications devices comprise cellular communications devices (See e.g. Page 1, ¶ [0012]).

Allowable Subject Matter

3. Claims 3-8 15-19, 22-24, 32-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Regarding claims 3, 15, 22, 32 the prior art of record fails to disclose singly or in combination or render obvious that wherein each wireless communications device has a unique identifier (UID) associated therewith; wherein the controller inserts the UID for the target wireless communications device in each of the location finding signals; and wherein the target wireless communications device generates respective reply signals based upon the UID in the locations signals.

Regarding claim 7, the prior art of record fails to disclose singly or in combination or render obvious that wherein the at least one antenna comprises a plurality of antennas; and wherein the controller cooperates with the plurality of antennas to determine a bearing to the target wireless communications device based upon at least one of the received reply signals.

Regarding claims 19, 24, the prior art of record fails to disclose singly or in combination or render obvious that wherein the at least one antenna comprises a plurality of antennas; and wherein the controller cooperates with the plurality of antennas to determine a bearing to the target WLAN device based upon at least one of the received reply signals.

Regarding claim 34, the prior art of record fails to disclose singly or in combination or render obvious that determining a bearing to the target wireless communication device based up on at least one of the received reply signals.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a) Ogino (U.S. Patent 6,865,394 B2).
 - b) Kuwahara (U.S. Pub. No.: 2003/0162550 A1).
 - c) Leon (U.S. 6,680,923 B1).
 - d) Karaoguz (U.S. Pub. No.: 2004/0203889 A1).

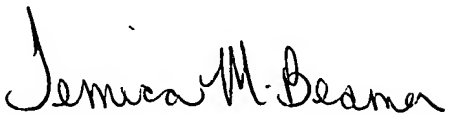
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Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kamran Afshar whose telephone number is (571) 272-7796. The examiner can be reached on Monday-Friday.

If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, **Feild, Joseph** can be reached @ (571) 272-4090. The fax number for the organization where this application or proceeding is assigned is **571-273-8300** for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kamran Afshar


TEMICA BEAMER
PRIMARY EXAMINER